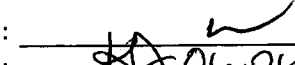
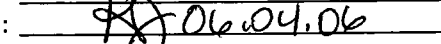


Date: Wednesday, 4/5/2006 3:24:12 PM
User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : CROSSTUBE EXTRUSION
Job Number : 26550	
Estimate Number : 10028	
P.O. Number : N/A	Part Number : D6006129
This Issue : 4/5/2006	Drawing Number : D6006 REV A
S.O. No. : N/A	Project Number : N/A
Prsht Rev. : NC	Drawing Revision : A
First Issue : N/A	Material : N/A
Type : LANDING GEAR	Due Date : 7/20/2006
Previous Run : 25666	Qty: 25 Um: Each
Written By : 	
Checked & Approved By : 	
Comment : Est Rev:C 04.06.15 Added tolerance to Step 2 KJ/JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	PG	PURCHASING
-----	----	------------



Comment: PURCHASING

Issue P/O:

0133

06-04-10

- a) Order as per Dwg D6006
- b) Material: 3.250 x 0.515 wall 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11) seamless aluminum tube
- c) Minimum ultimate tensile strength = 77 ksi
- d) Minimum tensile yield strength = 66 ksi
- e) Tolerance are per ASTM B210 (see details on Dwg D6006)
- f) Material certification required

2.0	D6006129P	Crosstube material
-----	-----------	--------------------




Comment: Qty.: 1.0000 Each(s)/Unit Total : 25.0000 Each(s)
Crosstube material

3.0	PACKAGING 1	PACKAGING RESOURCE #1
-----	-------------	-----------------------



Comment: PACKAGING RESOURCE #1

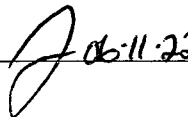
Receive & Inspect For Transit Damage
Ensure material certification is attached

 Rec'd (27)

4.0	QC6	DIMENSIONAL CHECK
-----	-----	-------------------



Comment: DIMENSIONAL CHECK
Ensure Material certification comply to Dwg D6006

 (27)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/01/11
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 4/5/2006 3:24:13 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: CROSSTUBE EXTRUSION

Job Number: 26550

Part Number: D6006129

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: MAT 27

EN 07/01/11

8.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

27
07/01/11

Job Completion



C 07/01/11

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

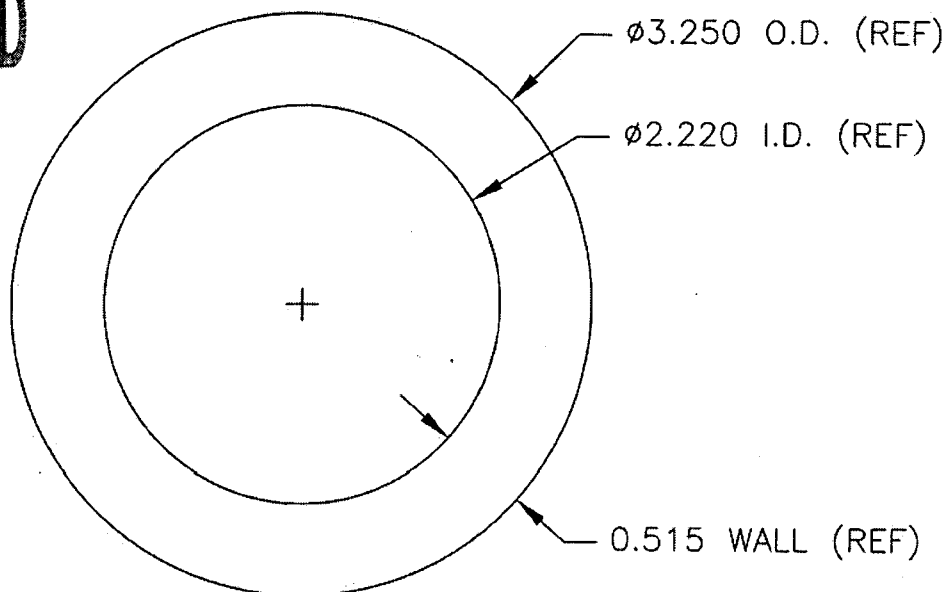
NOTE: Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>A</i>	APPROVED <i>A</i>	DRAWING NO. D6006	REV. A SHEET 1 OF 1
DATE 00.11.17		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	00.11.17	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24 *A*



NOTES

- 1) D6006-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 129" LONG TUBE: D6006-129

- 2) MATERIAL: 3.250 OD x 0.515 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.008 MEAN (± 0.016 INCLUDING OVALITY)
WALL: ± 0.020 MEAN (± 0.052 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.188/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH

- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 26550

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**ALUnna**

Abnahmeprüfzeugnis 3.1 - EN 10204:2004

Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004

Kunde:
Client:

Dart Aerospace Ltd.
1270 Aberdeen Street
K6A1K7 Hawkesbury, ON Canada

Zeugnisnummer: 555/06
Cert No.: / No. du certificat:

Bestellnummer: PO 0000933
Order No. / No. de commande

Auftrag: 18609/2
Our Reference/Notre Reference:

Produkt:

Product / Produit:

Rohre nahtlos gepresst
Tubes seamless extruded

Spezifikation:

Specification:

-; AMS - QQ - A - 200/11E; -; -

Werkstoff:

Alloy/Alliage:

7075

Zustand:

Tempér./État

T 6511

Abmessung

Size / Dimension

3,500 INCH x 2,250 INCH x 0,625 INCH x 129,000 INCH
D6009-129 3.500 X 0.625 X 129

Kennzeichnung

Marking/Marquage:

ALUnna - Cert No. 555/06 - 7075 T 6511 - Cast No. 01604347 - QQA 200/11E - 3.500" OD X 0.625" Wall - Heat No. 475/06 - Lot 18609/2-1 PO. 0000933

Lieferung

Delivered Material / Matériel délivré:

pcs.

27

lbs

1999

Country of Manufacture: Germany

1. Chemische Analyse

Chemical Analysis / analyse chimique

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
Charge/ min.			1,2		2,1	0,18	5,1						
Cast No. max.	0,40	0,50	2,0	0,30	2,9	0,28	6,1	0,20					
01604347	0,09	0,21	1,36	0,04	2,34	0,18	5,68	0,03	0,00	0,02			0,0000

Hydrogen content: <0,15

ccm/100 g Al

Elements without indication < 0,01 %

2. Mechanische Eigenschaften

Mechanical Properties / Valeurs Mécaniques

Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat No.
min.	77,0	66,0				
max.						
1	79,025	71,775	12,5		151	475/06 - 27 pcs.
2	79,460	72,210	11,0		161	

**Ergebnis der
Prüfungen:**

Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results:

We confirm that the delivery has been tested and applies to the agreements made on receipt of the order

Resultats:

Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande

**ALUnna**

Abnahmeprüfzeugnis 3.1 - EN 10204:2004

Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004

Kunde: Dart Aerospace Ltd.
Client: 1270 Aberdeen Street
K6A1K7 Hawkesbury, ON Canada

Zeugnisnummer: 814/06
Cert No. / No. du certificat:

Bestellnummer: PO 00000933
Order No. / No. de commande

Produkt: Rohre nahtlos gepresst
Product / Produit: Tubes seamless extruded

Auftrag: 18609/4
Our Reference/Notre Reference:

Spezifikation: -; AMS - QQ - A - 200/11E; -; -; Spezifikation Dart Aerospace D6006
Specification:

Werkstoff: 7075
Alloy/Alliage:

Zustand: T 6511
Temper/Etat

Abmessung: 3,250 INCH x 2,220 INCH x 0,515 INCH x 129,000 INCH
Size / Dimension: D6006-129.3.250 X 0.515 X 129

Kennzeichnung: ALUnna - Cert No. 814/06 - 7075 - T 6511 - Cast No. 01604347 - QQA 200/11E - 3.250" OD X 0.515" Wall - Heat
Marking/Marquage: No. 590/09 - Lot 18609/4-1 - PO. 00000933

Lieferung: pcs.
Delivered Material / Matériel délivré: 27

lbs 1539
Country of Manufacture: Germany

1. Chemische Analyse / Chemical Analysis / analyse chimique

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
Charge/ min.			1,2		2,1	0,18	5,1						
Cast No. max.	0,40	0,50	2,0	0,30	2,9	0,28	6,1	0,20					
01604347	0,09	0,21	1,36	0,04	2,34	0,18	5,68	0,03	0,00	0,02			0,0000

Hydrogen content: <0,15 ccm/100 g Al

Elements without indication < 0,01 %

2. Mechanische Eigenschaften / Mechanical Properties / Valeurs Mécaniques

Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat No.
min. max.	77,0	66,0				
1	81,345 ✓	74,820 ✓	11,0		162	590/09 - 27 pcs.
2	80,910	74,240	11,0		158	

Ergebnis der Prüfungen: Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results: We confirm that the delivery has been tested and applies to the agreements made on receipt of the order
Resultats: Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande